

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A device for increasing a perceived bandwidth in an audio signal path with limited bandwidth comprising:

an input terminal for connecting an ~~audio signal~~ a polyphonic ring signal;

an output terminal for connecting a speaker unit for generating an acoustic signal;

a splitter adapted to divide the audio signal path from the input terminal into two branches, the branches comprising:

a first branch for passing a first part of the ~~audio signal~~ polyphonic ring signal;

a second branch for processing a second part of the ~~audio signal~~ polyphonic ring signal; [and]

wherein the second branch comprises means for producing harmonics of the ~~audio signal~~ polyphonic ring signal; and

a combiner for adding the harmonics produced in the second branch to the first part of the ~~audio signal~~ polyphonic ring signal in the first branch at the output terminal; [and]

wherein the means for producing harmonics comprises a harmonic generator for producing out-of-band harmonics that increase a perceived sound pressure level of the polyphonic ring signal and thereby improve an alert function of the polyphonic ring signal.

2. (Previously Presented) The device according to claim 1, wherein the means for producing harmonics further comprises a filter and an adjustable amplifier.

3. (Previously Presented) The device according to claim 2, wherein the filter is arranged to separate an upper portion of a pass band as an input to the harmonic generator.

4. (Previously Presented) The device according to claim 2, wherein the

harmonic generator comprises a nonlinear circuit.

5. (Currently Amended) The device according to claim 2, wherein the harmonic generator comprises a digital signal processor (DSP).

6. (Previously Presented) The device according to claim 1, wherein the means for producing harmonics is arranged to add second harmonics.

7. (Previously Presented) The device according to claim 1, wherein the means for producing harmonics is arranged to add even harmonics.

8.-10. (Canceled)

11. (Previously Presented) The device according to claim 1, wherein the first branch comprises means for providing a delay or a phase shift.

12. (Previously Presented) The device according to claim 1, the device being used in a communication apparatus for increasing the perceived bandwidth.

13. (Currently Amended) The device according to claim [9] 1, the device being used in a communication apparatus comprising:

a polyphonic sound effect generator for producing the polyphonic ring signal.

14. (Currently Amended) The device according to claim 13, the device being used in a communication apparatus, wherein the communication apparatus is a portable telephone, a pager, a communicator or an electronic organizer.